WHAT IS CLAIMED IS:

1. A non-aqueous electrolyte secondary battery in which metallic lithium is to be used as a negative active material, which comprises the following elements:

a positive electrode comprising a positive active material;

a negative electrode;

metallic lithium electrically connected to said positive electrode; and

an electrolyte.

2. A non-aqueous electrolyte secondary battery in which metallic lithium is to be used as a negative active material, which comprises the following elements:

a positive electrode comprising as a positive active material a lithium-containing compound containing at least one of lithium nickel oxide having a ratio of lithium atoms to oxygen atoms within the range of from greater than 0.5 to not greater than 1 and lithium manganese spinel having a ratio of lithium atoms to oxygen atoms within the range of from greater than 0.25 to not greater than 0.5;

a negative electrode; and

an electrolyte.

3. The non-aqueous electrolyte secondary battery according to Claim 1, wherein said negative electrode comprises a lithium-absorbable material.

4. The non-aqueous electrolyte secondary battery according to Claim 2, wherein said negative electrode comprises a lithium-absorbable material.

5. The non-aqueous electrolyte secondary battery according to Claim 1, comprising a porous polymer electrolyte as an electrolyte.

6. The non-aqueous electrolyte secondary battery according to Claim 2, comprising a porous polymer electrolyte as an electrolyte.

7. The non-aqueous electrolyte secondary battery according to Claim 3, comprising a porous polymer electrolyte as an electrolyte.

8. The non-aqueous electrolyte secondary battery according to Claim 4, comprising a porous polymer electrolyte as an electrolyte.

9. A non-aqueous electrolyte secondary battery which is obtained by charging the non-aqueous electrolyte secondary battery according to any one of Claims 1 to 8 to form metallic lithium on the negative electrode.

10. A process for the preparation of a non-aqueous electrolyte secondary battery comprising metallic lithium on a negative electrode, which comprises

a step of assembling a positive electrode electrically connected to metallic lithium and a negative electrode into a non-aqueous electrolyte secondary battery, and

a step of forming metallic lithium on said negative electrode by charging the non-aqueous electrolyte secondary battery.

11. A process for the preparation of a non-aqueous electrolyte secondary battery comprising metallic lithium on a negative electrode, which comprises

a step of assembling a positive electrode comprising a positive active material into a non-aqueous electrolyte secondary battery, said positive active material containing at least one of lithium nickel oxide having a ratio of lithium atoms to oxygen atoms within the range of from greater than 0.5 to not greater than 1 or lithium manganese spinel having a ratio of lithium atoms to oxygen atoms within the range of from greater than 0.25 to not greater than 0.5, and

a step of forming said metallic lithium on said negative electrode by charging the non-aqueous electrolyte secondary battery.

12. The process for the preparation of a non-aqueous electrolyte secondary battery according to Claim 10, wherein said positive electrode comprises a current collector comprising aluminum.

13. The process for the preparation of a non-aqueous electrolyte secondary battery according to Claim 10 or 12, wherein said charging begins within 2 hours after the contact of said positive electrode with electrolyte.

14. The process for the preparation of a non-aqueous electrolyte secondary battery according to Claim 10 or 11, wherein said negative electrode comprises a lithium-absorbable material as a negative active material.

15. The process for the preparation of a non-aqueous electrolyte secondary battery according to Claim 10 or 11, wherein said non-aqueous electrolyte secondary battery comprises a porous polymer electrolyte as an electrolyte.